

DEPARTMENT OF ECOLOGY

September 8, 2006

TO: Science Advisory Board Members

FROM: Dawn Hooper, Toxics Cleanup Program

SUBJECT: Materials for the September 15, 2006, Science Advisory Board (SAB) Meeting

Attached are draft agenda and discussion materials for the September 15 MTCA SAB meeting. Here is a reminder of the meeting logistics:

September 15, 2006 (Friday)
9:00 am-3:30 pm
EPA Building: 1200 6th Ave
Seattle WA
15th Floor Kenai and Denali Rooms
Registration: 14th Floor

There are three main meeting topics:

- **Fish Consumption Rates for Asian Pacific Islanders:** The SAB has discussed this issue at several meetings over the past year. At this point, we would like to complete the SAB's discussion of this issue. Consequently, the primary purpose of this discussion is to review and confirm (1) the Board's responses on this issue that the Board provided to Ecology at the meeting held on December 15, 2005; and (2) the list of broader technical and policy issues identified by the Board during previous discussions. We have prepared a brief summary to support the Board's discussion at the September meeting. This summary is included in the attached materials.
- **Status on Establishing Moderate Levels of Arsenic in Soils:** The SAB has discussed this issue at several meetings over the past two and one-half years. The primary purpose of this discussion is to provide an update on the Board's review of this issue. At this point, we plan to conclude the review and discussion of the remaining issues related to this topic at the next Board meeting.
- **MTCA Rule Revision – Use of the TEFs for Dioxin and PAHs:** The Department has begun a rulemaking process to amend the Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC). This rulemaking will clarify the policies and procedures for establishing cleanup levels for mixtures of polychlorinated dibenzo-p-dioxins/ polychlorinated dibenzofurans, polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs).
- **Science Advisory Board Review:** The Department is requesting that the SAB review the background materials and provide advice and opinions on whether Ecology's

proposal is consistent with current scientific information. Specifically, we are interested in your responses to the following questions:

- Ecology is planning to modify the MTCA rule to clarify that mixtures of dioxins and furans should be treated as a single hazardous substance when establishing cleanup levels and remediation levels. One of the foundations for this policy decision is the conclusion that the various dioxin and furan congeners act through a common biological mechanism of action. Is this conclusion regarding common mechanism of action consistent with current scientific information?
- Ecology is planning to use the Toxicity Equivalency Factors recommended by the World Health Organization (Van den Berg et al. 2006) when establishing and evaluating compliance with cleanup levels and remediation levels for dioxin and furan mixtures. Is this approach consistent with current scientific information?
- Ecology is planning to provide cleanup proponents with the option to use the Toxicity Equivalency Factors recommended by the World Health Organization (Van den Berg et al. 2006) when establishing and evaluating compliance with cleanup levels and remediation levels for polychlorinated biphenyls. Is this approach consistent with current scientific information?
- Ecology is planning to use the Potency Equivalency Factors (PEFs) recommended by the California Environmental Protection Agency (Cal EPA, 2005) when establishing and evaluating compliance with cleanup levels and remediation levels for carcinogenic PAH mixtures. This would be an update of the Cal EPA factors previously addressed in a Board recommendation. Is this approach consistent with current scientific information?
- Ecology is considering establishing a default gastrointestinal absorption factor for dioxin/furan mixtures equal to 0.4. Is this default value consistent with current scientific information?
- Ecology is considering establishing a default dermal absorption factor dioxin/furan mixtures equal to 0.03. Is this value consistent with current scientific information?
- Ecology is planning to continue to use the TEF and PEF values when establishing cleanup levels and remediation levels for abiotic media (e.g. soil). Is this approach consistent with current scientific information?
- Ecology is planning to require that cleanup proponents use congener-specific information when evaluating cross-media transfer (e.g. soil to ground water) of mixtures of dioxins, furans and/or polychlorinated biphenyls. Is this approach consistent with current scientific information?
- Ecology is planning to require that cleanup proponents use PAH-specific information when evaluating the cross-media transfer (e.g. soil to ground water) of carcinogenic PAH mixtures. Is this approach consistent with current scientific information?
- **Information Materials to Support SAB's Review:** Ecology has prepared a set of discussion materials to support the SAB's review of this issue. These materials are attached to this memorandum. **Please note that we are not expecting that you will have reviewed these materials in detail prior to the September 15th meeting.** The attached materials include:
 - Background Document that provides a description of the draft rule amendments, a summary of key scientific and policy issues and copies of public comments on the draft rule revisions.
 - A document "Health Risks from Dioxin and Related Compounds Evaluation of the EPA Reassessment" that was recently published by the National Research Council.

- A recent paper “The 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxin and Dioxin-like Compounds” that was published in Toxicological Sciences.
- Relevant sections from the document “Technical Support Document for Describing Available Cancer Potency Factors - Part II” (California EPA, 2005).
- **The September 15th Science Advisory Board Meeting:** We have three main goals for the discussion on September 15th. First, we want to provide you with some background information on this issue. We are planning to present an overview of the rulemaking process and summarize the technical and policy rationale for the proposed amendments. Second, we will provide you with the opportunity to ask us any initial questions you might have on the project background and/or written materials. Third, we want to make sure that we have clearly communicated our expectations for the Board’s review of this issue. Toward that end, we would like the SAB to consider the following questions:
 - Are the questions listed above written in way that can be objectively evaluated based on current scientific information and knowledge?
 - Are there other scientific questions that you believe the Department should be considering when evaluating this issue?
 - Do the discussion materials provide you with a sufficient amount of information to review the questions identified above? If not, what additional information would you find useful?

Based on your responses to these three questions, Ecology will prepare any supplementary materials needed to support the Board’s review of the questions listed above. These supplementary materials (if any) will be mailed to the SAB prior to the next meeting.

We look forward to meeting with you again. If you have questions prior to the meeting, please contact Dawn Hooper (360/407-7182), Pete Kmet (360/407-7199) or Dave Bradley (360/407-6907).

DB:am

Attachments